March 2024

CURRICULUM VITAE

Michael L. Pace
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University of Virginia
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Professional Experience

W.W. Corcoran Professor of Natural History, Dept. of Environmental Sciences, University of Virginia, 2021-Present
Commonwealth Professor, Dept. of Environmental Sciences, University of Virginia, 2018-2020
Chair, Dept. of Environmental Sciences, University of Virginia, 2014-2019
Professor, Dept. of Environmental Sciences, University of Virginia, 2008-2018
Adjunct Scientist, Cary Institute of Ecosystem Studies, 2008-Present
Assistant Director, Cary Institute of Ecosystem Studies, 2000-2008
G. Evelyn Hutchinson Chair in Ecology, Institute of Ecosystem Studies, 2005-2008
Senior Scientist, Cary Institute of Ecosystem Studies, 1994-2008
Acting Director, Cary Institute of Ecosystem Studies, 1996, 2004
Associate Scientist, Cary Institute of Ecosystem Studies, 1989-1994
Assistant Scientist, Cary Institute of Ecosystem Studies, 1986-1989
Assistant Professor, Dept. of Oceanography, University of Hawaii, 1983-1985
Postdoctoral Fellow, Dept. of Biology, McGill University, 1981-1983

Education

Ph.D. Ecology, University of Georgia, 1981
M.S. Zoology, University of Georgia, 1977
B.A. Biology & English, University of Virginia, 1974

Research Interests

Aquatic Ecosystems, Food Webs, Microbial Ecology, Biogeochemistry

Honors and Awards

Sustaining Fellow, Association for the Sciences of Limnology and Oceanography 2024
Kaeser Scholar, Center for Limnology, University of Wisconsin 2023

Appointed to endowed professorship, University of Virginia 2018
President, Association for the Sciences of Limnology and Oceanography 2018-2020
Naumann-Thienemann Medal, International Society of Limnology, 2016
Keynote Speaker, Australian Society of Limnology, September 2017
Visiting Scholar, Virginia Institute of Marine Sciences, June 2013
Candidate, President Ecological Society of America, Fall 2012
Synthesis Speaker, Final Meeting of Lake Ecosystem Response to Environmental Change program, Abisko, Sweden, September 2010
Keynote Address, Brazilian Congress of Limnology, August 2009
G. Evelyn Hutchinson Medal, American Society of Limnology and Oceanography, 2009
Visiting Faculty, Agouron Institute Course: Microbial Oceanography: Genomes to Biomes, University of Hawaii, Honolulu, Hawaii, July 2008
University of Minnesota, Water Resources Science Program, Distinguished Visitor Series, April 2008
Citation, Outstanding Reviewer *Limnology and Oceanography* in *L&O Bulletin* Vol. 16: 85, American Society of Limnology and Oceanography
Guest Researcher with Lake Ecosystem Response to Environmental Change (LEREC) Group, Universities of Umea and Uppsala, Sweden, September 2006
Eminent Ecologist, Kellogg Biological Station, Michigan State University, June 2005
Elected Fellow, American Association for the Advancement of Science, 1995
Citation, American Fisheries Society for Most Significant Paper in *Transactions of the American Fisheries Society* Volume 121, 1992
Sigma Xi Award for Outstanding Ph.D. Dissertation, University of Georgia, 1981
Magna Cum Laude Graduate, University of Virginia, 1974
Phi Sigma Award in Biology, University of Virginia, 1974
Elected, Phi Beta Kappa, 1974

Selected Service

Treasurer, Association for the Sciences of Limnology and Oceanography, appointed by the ASLO Board to complete term, 2023
Guest Editor, Special Issue of *Limnology and Oceanography* on Nonlinear Dynamics, Publication 2022
Reviewer, Candidates for Appointment to Professor, University of Innsbruck, 2018
President-Elect, President, and Past-President, Association for the Sciences of Limnology and Oceanography, 2016-2022
Reviewer, Candidates for Appointment to Professor, University of Vienna, 2017
Co-Chair, Association for the Sciences of Limnology and Oceanography Meeting, 2015 Granada, Spain
Editorial Board, *Ecosystems*, 1998-2000, 2008-2017
Science Advisory Committee for NSERC Industrial Research Chair in Carbon Biogeochemistry in Boreal Aquatic Systems, University of Quebec at Montreal, 2010- 2015
External Review Committee, Cornell Biological Field Station, Bridgeport, New York, July 2008,
Faculty 1000, Section Marine & Freshwater Ecology “Faculty Member”, 2005-2012

Editorial Board, *Frontiers in Ecology and the Environment*, 2006-2010
Rapid Response Team on Aquatic Ecology, Ecological Society of America, 2004- 2012
Committee of Visitors (Chair), Division of Environmental Biology, National Science Foundation, June 2006
Science Committee (Chair), International Limnology Society Triennial Meeting, 2006-2007
Organizing Committee, American Society of Limnology and Oceanography Annual Meeting, Santiago de Compostela, Spain, 2005
Review Committee for Editor in Chief of *Ecological Applications*, Ecological Society of America, 2004-2005 (Chair)
Publications Committee, American Society of Limnology and Oceanography, 2002-2004 (Chair), 2015-2016
Ecosystem Studies Panel, National Science Foundation 2000-2004, 2012, 2013, 2016
Visions Committee, Ecological Society of America, 2002-2004
National Research Council, Committee on Endangered and Threatened Fishes of the Klamath Basin 2001-2004
Nominations Committee, American Society of Limnology and Oceanography, 1993-1994, 1999-2001 (Chair 2000-2001)
Scientific Advisory Board, National Center for Ecological Analysis and Synthesis, 1998-2001, (Chair 2000-2001)
Advisory Review Committee of the Cornell Biology Field Station, Bridgeport, New York, November 1999, external committee member
G. Evelyn Hutchinson Award Subcommittee, American Society of Limnology and Oceanography, 1999-2001, 2010-2011
Panel, EPA Star Program on Regional Scale Analysis and Assessment, 1999
Judge and Advisory Panel for Dutchess County Science Fair 1998, 2001-2002
Scientific Advisory Committee, Multiscale Experimental Ecosystem Research Center, Center for Environmental Sciences, University of Maryland, 1998-2000
Associate Editor, *Limnology and Oceanography*, 1994-1999
Grant Review Panels, Hudson River Foundation, 1996, 1997
Board Member, Association of Ecosystem Research Centers, 1994-1997
Grant Review Panels, National Science Foundation, 1990, 1994, 2010

Courses Taught at the University of Virginia

Limnology: Inland Water Ecosystems (EVSC 4290/7290) – Fall Semesters 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018; Spring Semester 2021, 2023
Ecology (EVSC 3200): Spring Semesters 2010 and 2012; Fall Semester 2020 and 2022
Ecology Lab (EVSC 3201): Spring Semesters 2010 and 2012; Fall Semester 2020 and 2022
Ecosystem Ecology (EVSC 4250/7250): Fall Semester 2021, 2022; Spring Semesters 2009, 2011, 2013
Professional Development in the Environmental Sciences: Spring Semester 2015
Long-Term Ecological Research – Advancing Ecological Theory: Spring Semester 2016
Estuarine Ecology (EVSC 4110, 7110) – Fall Semester 2020

Graduate Students and Postdoctoral Associates Supervised

Dat Ha, M.S., 2023, Dept. of Environmental Sciences, University of Virginia, Currently Lab Specialist, University of Virginia

Spencer Tassone, Ph.D., 2023, Dept. of Environmental Sciences, University of Virginia, Currently Postdoctoral Fellow, Michigan Tech University

Jonathan Walter, Postdoctoral Associate, 2019-2021, Dept. of Environmental Sciences, University of Virginia, Currently Research Associate, University of California Davis

Cal Buelo, Ph.D. 2021, Dept. of Environmental Sciences, University of Virginia, Currently Physical Scientist, U.S. Environmental Protection Agency

Alice Besterman, Ph.D. 2019, Dept. of Environmental Sciences, University of Virginia. Currently Assistant Professor, Towson State University

Jessica Gephart, Ph.D. 2016, Dept. of Environmental Sciences, University of Virginia. Currently Assistant Professor American University

Kyle Emery, M.S., 2015, Dept. of Environmental Sciences, University of Virginia Currently Postdoc. University of California Los Angles

Grace Wilkinson, Ph.D., 2015 and Postdoctoral Associate 2015-2016, Dept. of Environmental Sciences, University of Virginia, Currently Associate Professor University of Wisconsin

David Seekell, Ph.D. 2014, Dept. of Environmental Sciences, University of Virginia. Currently Head of Sustainable Investing, Atle, Stockholm, Sweden

Kelly Hondula, M.S. 2012, Dept. of Environmental Sciences, University of Virginia, Currently Postdoctoral Researcher, Arizona State University

James Coloso, M.S. 2010, Dept. of Environmental Sciences, University of Virginia, Currently Research Technician, National Ecological Observatory Network

Caroline Turner, M.S. 2008, Dept. of Ecology and Evolutionary Biology, Cornell University, Currently Assistant Professor, Dept. of Biology, Loyola

Roxane Maranger, Postdoctoral Associate 2000-2002; Currently Professor, Dept. of Biological Sciences, University of Montreal

Francis Chan, Ph.D. 2001, Dept. of Ecology and Evolutionary Biology, Cornell University; Currently Research Associate Professor, Dept. of Integrative Biology, Oregon State University

David Post, Ph.D. 2000, Dept. of Ecology and Evolutionary Biology, Cornell University; Currently Professor, Dept. of Ecology and Evolution, Yale University

Isabel Reche, Postdoctoral Associate 1995-1997; Currently Professor, Dept. of Zoology and Ecology, University of Granada

Karin Limburg, Postdoctoral Associate 1994-1997; Currently Distinguished Professor, Environmental and Forest Biology, SUNY College of Environmental Science and Forestry, Syracuse, New York

Stephen Baines, Ph.D. 1993, Biology Dept., Yale University; Currently Associate Professor, Dept. of Ecology and Evolution, SUNY Stony Brook

Hélène Cyr, Ph.D. 1992, Ecology Program, Rutgers University; Currently Associate Professor (retired), Dept. of Ecology and Evolutionary Biology, University of Toronto

Dolors Vaqué, Postdoctoral Associate 1990-1991; Currently Senior Research Scientist, Institut de Ciencias del Mar, Barcelona, Spain
George McManus, Postdoctoral Associate 1986-1989; Currently Professor, Marine Sciences, University of Connecticut

Extramural Grants

National Science Foundation – Collaborative Research: Whole ecosystem test of restoring resilience in lakes. 2023-2026, $399,132
National Science Foundation – IRES Track III – International Research Engagement for Graduate Level Professional Development: Limnology and Oceanography Research Exchange (LOREX), 2018-2021, $1,104,122
National Science Foundation – LTER: Climate drivers, dynamics, and consequences of ecosystem state change in coastal barrier systems, 2018-2024, $6,762,000
National Science Foundation – Collaborative research: Spatial dynamics and early warnings of harmful algal blooms. 2018-2024, $442,999
National Science Foundation - EAGER Collaborative Research: Synchronization between terrestrial and aquatic ecosystems, 2018-2020, $163,673 (completed)
National Science Foundation – EAGER research: An instrument setup for measuring air –water gas exchange by eddy covariance in shallow-water marine systems. 2018-2022, $279,142 (completed)
National Science Foundation - OPUS: Collaborative research: analysis of cross-boundary fluxes, trophic cascades, and ecosystem stability based on 32 years of whole-lake experiments. 2015-2019, $71,190 (completed)
National Science Foundation – EAGER research: Gas exchange over the air-water interface of freshwater systems, 2015-2018, $284,994 (completed)
National Science Foundation - LTER: Drivers, dynamics and consequences of non-linear change in coastal barrier systems, 2012-2018, $5,880,000 (completed)
National Science Foundation - Collaborative Research: Whole Ecosystem Experiments on Early Warnings for Regime Shifts to Cyanobacteria in Lakes, 2012-2017, $377,901(completed)
National Science Foundation –LTREB: Long-term effects of a species invasion on an aquatic ecosystem, 2011-2016, $450,000 (completed)
NASA Virginia Space Grant Consortium – Spatial organization of lake size distributions and biogeochemical processes. 2013-2014, $5000 (completed)
National Science Foundation - Collaborative research: Terrestrial support of lake food webs: A multi-isotope approach, $244,884 (completed)
National Science Foundation – Collaborative research: leading indicators of regime shift – an ecosystem experiment, $462,185 (completed)
National Science Foundation – QEIB: A spatially-explicit watershed-scale analysis of nutrient loading to Adirondack lake ecosystems, $300,000 (completed)
National Science Foundation – LTREB: Long term response of an aquatic ecosystem to an invasive species, $300,000 (completed)
National Science Foundation – Frontiers in sustainability science: biofuels as a critical test, $49,900 (completed)
McCann Foundation – Boat engine replacement, $10,000 (completed)

Hudson River Foundation - Boat Engine to Support Hudson River Activities, $10,000 (completed)
Hudson River Foundation – Freshwater flow and benthic grazing as controls on the Hudson River food web: a synthesis of long-term data, $92,982 (completed)
National Science Foundation –Collaborative Research: Terrestrial carbon subsidies of aquatic food webs, $700,000 (completed)
Hudson River Foundation – Bacterial activity in the upper Hudson Estuary: Do sewage nutrients stimulate degradation of organic matter? $193,100 (completed)
National Science Foundation – Collaborative Research: Alternative carbon sources for lake food webs, $611,000 (completed)
National Science Foundation – LTREB: Developing a long-term perspective on the response of an aquatic ecosystem to an invasive bivalve, $300,000 (completed)
Hudson River Foundation – Hot spots of bacterial activity in the Hudson River Estuary, $190,495 (completed)
Environmental Protection Agency – Regional analysis of variation in Adirondack lake ecosystems: landscape scale determinants of dissolved organic carbon, $453,775 (completed)
Department of Energy - Seventh Cary Conference: Successes, limitations and frontiers in ecosystem ecology to be held May 1997, $25,000 (completed)
National Aeronautics and Space Administration - Successes, limitations and frontiers in ecosystem ecology. $30,000 (completed)
National Science Foundation - Cary Conference VII: Successes, limitations and frontiers in ecosystem ecology: May 6-8, 1997, $41,000 (completed)
Cornell University - Subcontract on National Science Foundation Grant - Do top-down and bottom-up controls interact to exclude N-fixing cyanobacteria from the plankton of estuaries? $147,443 (completed)
National Science Foundation - Alternative states and ecosystem metabolism in lakes: interactions of nutrients and DOC, $316,097 (completed)
National Science Foundation - Response and compensation to a bivalve invasion by an aquatic ecosystem, $900,000 (completed)
Hudson River Foundation - Are spawners the first to go? Retrospective otolith analysis of successfully recruited American shad. $41,000 (completed)
New York Sea Grant Institute - Hudson River food web dynamics and the recruitment of striped bass, $115,000 (completed)
National Science Foundation - Research Opportunity Award supplement for Dr. William Shaw, Sullivan Community College, $15,000 (completed)
Hudson River Foundation - Cladoceran dynamics and the recruitment of larval *Morone* in the Hudson River Estuary, $79,000 (completed)
Hudson River Foundation - Synthesis of information on the lower food web of the tidal freshwater Hudson River, $66,000 (completed)
National Science Foundation - Regulation of heterotrophic microbial processes in lake ecosystems, 652,000 (completed)
National Science Foundation - Microbial investigations of north temperate lakes: A supplement for research at LTER sites, $45,000 (completed)
Hudson River Foundation - Significance of bacterial production in the lower food web of the Hudson River, $132,000 (completed)

Hudson River Foundation - Hudson River fish populations: analysis of distribution and abundance from existing data, $122,000 (completed)
Lehigh University from a Mellon Foundation grant to Lehigh - Studies of the fate of algal production: sedimentation and grazing in three Poconos lakes, $5000 (completed)
University of Rhode Island, subcontract from an Environmental Protection Agency grant to URI - A nitrogen mass balance of the New York Bight ecosystem, $45,000 (completed)
National Science Foundation - Cascading trophic interactions in lake ecosystems: effects on bacteria and their consumers, $150,000 (completed)
Hudson River Foundation - Regulation of crustacean zooplankton in the Hudson River, $72,000 (completed)
Hudson River Foundation - Grazing on algae and bacteria by crustacean zooplankton in the Hudson River, $67,000 (completed)

Presentations (2019-2023)

Abstracts from Presentations at Scientific Meetings

Pace, M. L., A. F. Besterman, C. D. Buelo, S. Carpenter, D. T. Ha, S. J. Tassone, J. A. Walter, and G. M. Wilkinson. Quantifying stability and resilience in estuaries and lakes using high frequency data. Aquatic Sciences Meeting, Association for the Sciences of Limnology & Oceanography, Palma, Spain, June 6, 2023.
Ha, D. T., C. D. Buelo, S. J. Tassone, J. A. Walter, and M. L. Pace. Quantifying algal blooms with high frequency data and a disturbance-recovery algorithm. Aquatic Sciences Meeting, Association for the Sciences of Limnology & Oceanography, Palma, Spain, June 6, 2023.
Tassone, S. J., and M. L. Pace. Seagrass Resilience Experiment. Long Term Ecological Research Network - All Scientist Meeting. Pacific Grove, CA, September 19-23, 2022
Walter, J. A., N. J. Coombs, M. Pace. Timescale-specific, spatially synchronous fluctuations in dissolved organic carbon of Adirondack lakes are linked to precipitation and biogeochemistry. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, May 20, 2022.
Ortiz, D. A., S. R. Carpenter, D. T. Ha, M. L. Pace, E. H. Stanley, and C. J. Vines, Diel spatial heterogeneity among north temperate lakes with differing trophic status. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, May 19, 2022.
Maas, C. M. and others. Past, present, and future of freshwater salinization syndrome in the Anthropocene. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, May 17, 2022.
Schieler, B., L. Duguay, M. Pace, and A. Paytan. Adventures, challenges, and benefits of conducting international collaborative research. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, May 17, 2022.
Szydlowski, D. K., S. R. Carpenter, M. L. Pace, E. H. Stanley, and G. M. Wilkinson. Phytoplankton response to storm conditions is mediated by antecedent

hydrologic conditions. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, May 16, 2022.

Pace, M. L., C. D. Buelo, S. R. Carpenter, D. T. Ha, D. A. Ortiz, E. H., Stanley, and G. M. Wilkinson. Threshold for phytoplankton blooms indicated by whole lake nutrient additions. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, May 16, 2022.

Buelo, C. D., A. F. Besterman, J. A. Walter, M. L. Pace, D. T. Ha, and S. J. Tassone. Quantifying disturbance and recovery in estuaries: tropical cyclones and high frequency measures of oxygen and salinity. Ocean Sciences Meeting, Virtual, March 1, 2022.

Pace, M. L., C. D. Buelo, and S. R. Carpenter. Phytoplankton biomass, dissolved organic matter and temperature drive respiration in whole lake nutrient additions. Association for the Sciences of Limnology and Oceanography Virtual Meeting, June 24, 2021

Walter, J. A, R. Fleck, J. H. Kastens, M. L. Pace, and G. M. Wilkinson. Temporal coherence between lake and landscape primary productivity. Association for the Sciences of Limnology and Oceanography Virtual Meeting, June 25, 2021.

Buelo, C. D., M. L. Pace, S. R. Carpenter, E. H. Stanley, D. A. Ortiz, and D. T. Ha. Evaluating temporal and spatial early warning statistics of algal blooms. Association for the Sciences of Limnology and Oceanography Virtual Meeting, June 24, 2021.

Carpenter, S. R., M. L. Pace, and G. M. Wilkinson. How to measure resilience of an ecosystem. Plenary talk, Virtual Conference on Tropical Forest Resilience, Leige, Belgium, October 18, 2021.

Besterman, A.F., M.L. Pace. Predicting benthic macroalgal abundance in shallow coastal bays from hydrodynamics and geomorphology. Coastal and Estuarine Research Federation 25th Biennial Conference, Mobile, Alabama November 5, 2019

Besterman, A.F., S. Karpanty, M.L. Pace. Impact of exotic macroalga on shorebirds varies with foraging specialization and spatial scale. Virginia Society of Ornithology Annual Meeting, Pembroke, Virginia, May 4, 2019.

Buelo, C.D., M.L. Pace, S.R. Carpenter. Time versus space: comparing early warning indicators of algal blooms. Aquatic Sciences Meeting, Association for the Sciences of Limnology & Oceanography, San Juan, Puerto Rico, February 28, 2019.

Wilkinson, G.M., J.A. Walter, M.L. Pace, R. Fleck. Synchronization among terrestrial and aquatic ecosystems. Aquatic Sciences Meeting, Association for the Sciences of Limnology & Oceanography, February 25, 2019.

Besterman, A.F., M.L. Pace. Geomorphology exerts bottom-up control on intertidal flat biomass. Aquatic Sciences Meeting, Association for the Sciences of Limnology & Oceanography, San Juan, Puerto Rico, February 28, 2019

Invited Seminars and Presentations

Integrative Biology Colloquium, Department of Integrative Biology, University of Wisconsin, October 2023

Kaeser Scholar Seminar, Center for Limnology, University of Wisconsin, October 2023

Distinguished Scientist Seminar, Ecosystems Center, Marine Biological Lab, September 2019

Publications

Books

Pace, M.L., and P.M. Groffman (eds.). 1998. Successes, limitations, and frontiers in ecosystem science. Springer-Verlag.

Journal Articles and Book Chapters

Tassone, S.J. and M.L. Pace 2023. Increased frequency of sediment heatwaves in a Virginia seagrass meadow. Estuaries and Coasts https://doi.org/10.1007/s12237-023-01314-7

Schmidt, D.F., K.M. Grise, and M.L. Pace. 2023. Does the 11-year solar cycle affect lake and river ice phenology. PLoS One 18: e0294995. https://doi.org/10.1371/journal.pone.0294995

Smith, A.J., K. McGlathery, Y, Chen, C. J. Ewers Lewis, S. C. Doney, K. Gedan, C. K. LaRoche, P. Berg, M. L. Pace, J. C. Zinnert, and M. L. Kirwan 2023. Compensatory Mechanisms Absorb Regional Carbon Losses Within a Rapidly Shifting Coastal Mosaic. Ecosystems 27: 122-136 https://doi.org/10.1007/s10021-023-00877-7

Buelo, C.D., A.F. Besterman, J.A. Walter, M.L. Pace, D.T. Ha, and S.J. Tassone. 2023. Quantifying disturbance and recovery in estuaries: tropical cyclones and high frequency measures of oxygen and salinity. Estuaries and Coasts https://doi.org/10.1007/s12237-023-01255-1

Walter, J.M., N.J. Coombs, and M.L. Pace. 2023. Synchronous variation of dissolved organic carbon in Adirondack lakes at multiple timescales. Limnology and Oceanography Letters 8: 649-656. http://dx.doi.org/10.1002/lol2.10328

Tassone, S.J., A.F. Besterman, C.D. Buelo, D.T. Ha, J.A. Walter, and M.L. Pace. 2023. Increasing heatwave frequency in streams and rivers of the United States. Limnology and Oceanography Letters 8: 295-304. http://doi.org/10.1002/lol2.10284

Kaushal, S.J. and others. 2023. State factors control progressive stages of freshwater salinization syndrome. Limnology and Oceanography Letters 8: 190-211 https://doi.org10.1002/lol2.10248

Cole, J.J., and M.L. Pace. 2022. The discipline of limnology. In Encyclopedia of Inland Waters, 2nd Edition, pp. 11-18. Edited by: K. Tockner and T. Mehner. 2nd Edition

Carpenter, S.R., M.L. Pace, and G.M. Wilkinson. 2022. Organic color and resilience of phytoplankton to enrichment. Limnology and Oceanography Letters 7:466-474 https://doi.org/10.1002/lol2.10280

Buelo, C. D., M L. Pace, S R. Carpenter, E H. Stanley, D A. Ortiz, D.T. Ha. 2022. Evaluating the performance of temporal and spatial early warning statistics of algal blooms. Ecological Application https://doi.org/10.1002/eap.2616

Walter, J. A, C. D. Buelo, A. F. Besterman, S. J. Tassone, J. Atkins, and M. L. Pace. 2022. An algorithm for detecting and quantifying disturbance and recovery in high frequency time series. Limnology and Oceanography Methods 20: 338-349. https://doi.org/10.1002/lom3.10490

Seekell, D.A., M.L. Pace, J.B. Heffernan, and S.J. Holbrook. 2022. Limnology and Oceanography 67: S1-S4.

Tassone, S.J., A.F. Besterman, C.D. Buelo, J.A. Walter, and M.L. Pace. 2022. Co-occurrence of aquatic heatwaves with atmospheric heatwaves, low oxygen, and low pH events in estuarine ecosystems. Estuaries and Coasts 45: 707-720. https://doi.org10.1007/s12237-021-01009-x

Wilkinson, G.M., J.A. Walter, C.D. Buelo, and M.L. Pace. 2022. No evidence of widespread algal bloom intensification in hundreds of lakes. Frontiers in Ecology and Environment 20: 16-21

Besterman, A.F. and M. L. Pace. 2021. Mudflat geomorphology determines invasive macroalgal effect on invertebrate prey and shorebird predators. Ecology 102: e03540 https://doi.org/10.1002/ecy.3540

Kaushal, S.S., G.E. Likens, M.L. Pace and others. 2021. Freshwater salinization syndrome: from emerging global problem to managing risks. Biogeochemistry 154: 255-292.

Carpenter, S.R., B.M.S. Arani, E. H. Van Nes, M. Scheffer, and M. L. Pace. 2021. Resilience of phytoplankton to trophic cascades and nutrient enrichment. Limnology and Oceanography 67: S258-S265. https://doi.org/10.1002/lno.11913

Pace, M.L. 2021. Revisiting the ecosystem concept: important features that promote generality and understanding, p. 217-226. In K. Weathers, D. Strayer and G. E. Likens (editors). Fundamentals of Ecosystem Ecology 2nd Edition

Pace, M. L., G. M. Lovett, C. C. Carey, and R Q. Thomas. 2021 Primary production the foundation of ecosystems, p. 29-53. In K. Weathers, D. Strayer and G. E. Likens (editors). Fundamentals of Ecosystem Ecology 2nd Edition.

Pace, M.L., C.D. Buelo, and S.R. Carpenter. 2021. Phytoplankton biomass, dissolved organic matter, and temperature drive respiration in whole lake nutrient additions. Limnology and Oceanography 66: 2174-2186.

Bianchi, T.S., M. Anand, C.T. Bauch, D.E. Canfield, K. Fennel, P.M. Groffman, M.L. Pace, M. Saito, and M.J. Simpson. 2021. Ideas and perspectives: Some key foci for the future. Biogeosciences 18: 1305-1313.

Besterman, A.F., K. McGlathery, M. Reidenbach, P. Wiberg, and M.L. Pace. 2020 Predicting benthic macroalgal abundance in shallow coastal lagoons from geomorphology and hydrologic flow patterns. Limnology and Oceanography 66: 123-140. https://doi.org10.1002/lno.11592

Walter, J.A., R. Fleck, J. H. Kastens, M.L. Pace, and G.M. Wilkinson. 2020 Temporal coherence between lake and landscape primary production. Ecosystems 24: 502-515. https://doi.org/10.1007/s10021-020-00531-6

Berg, P., M. L. Pace, and C.D. Buelo. 2020. Air-water gas exchange in lakes and reservoirs measured from a moving platform by underwater eddy covariance.

Limnology and Oceanography Methods 18: 424-436. https://doi.10.1003/lom3.10373

Walter, J.A., R. Fleck, J. H. Kastens, M.L. Pace, and G.M. Wilkinson. 2020. Scaling relationship between lake surface area and catchment area. Aquatic Sciences 82: 47 https://doi.org/10.1007/s00027-020-00726-y

Besterman, A.F., M.L. Pace, S. Karpanty. 2020. Impact of exotic macroalga on shorebirds varies with foraging specialization and spatial scale. Plos One 15: e0231337. https://doi.org/ 10.1371/journal.pone.0231337

Wilkinson, G.M., J. Walter, R. Fleck, M.L. Pace. 2020. Beyond the trends: The need to understand multiannual dynamics in aquatic ecosystems. Limnology and Oceanography Letters 5: 281-286. https://doi.org/10.1002/lol2.10153

Strayer, D.L., D.T. Fischer, S.K. Hamilton, H.M. Malcom, M.L. Pace, and C.T. Solomon. 2019. Long-term variability and density dependence in Hudson River Dreissena populations. Freshwater Biology 65: 474-489. https://doi.org/10.1111/fwb.13444

Geraldi, N.R., A. Ortega, O. Serrano, P.I. Macreadie, C, Lovelock, D. Krause-Jensen, H.A. Kennedy, P.S. Lavery, M.L. Pace, J. Kaal, C.M. Duarte. 2019. Fingerprinting blue carbon: Rationale and tools to determine the source of organic carbon in marine depositional environments. Frontiers in Marine Science https://doi.org/10.339/fmars.2019.00263

Pace, M. L., S. R. Carpenter, and G. M. Wilkinson. 2019. Long-term studies and reproducibility: Lessons from whole-lake experiments. Limnology and Oceanography 54: S22-S33.

Schmidt, D.F., K.M. Grise, and M.L. Pace. 2019. High-frequency climate oscillations drive ice-off variability for Northern Hemisphere lakes and rivers. Climate Change 152: 517-532.

Kaushal, S.S., G.E. Likens, M.L. Pace, S. Haq, K.L. Wood, J.G. Galella, C. Morel, T.R. Doody, B. Wessel, P. Kortelainen, A. Räike, V. Skinner, R. Utz, and N. Jaworski. 2018. Novel chemical cocktails in inland waters as a consequence of the freshwater salinization syndrome. Philosophical Transactions of the Royal Society of London B 374: article 20180017.

Carpenter, S.R., and M.L. Pace 2018. Synthesis of a 33-year series of whole-lake experiments: effects of nutrients, grazers, and precipitation-driven water color on chlorophyll. Limnology and Oceanography Letters 3: 419-427

Wilkinson, G.M., A. Besterman, C. Buelo, J. Gephart, and M.L. Pace. 2018. A synthesis of modern organic carbon accumulation rates in coastal and aquatic inland ecosystems. Scientific Reports 8: e15736

Buelo, C.D., S.R. Carpenter, and M.L. Pace. 2018. A modeling analysis of spatial indicators of thresholds for algal blooms. Limnology and Oceanography Letters 3: 384-393.

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